

Thumbnail sketch of the A. E. Staley Mfg. Co.'s Elevator at Decatur, Ill.



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THE DEPENDABLE GRAIN FUMIGANT

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KANSAS CITY, MD.

CHOICE OF THE GRAIN TRADE

The Genesis of Barley And Its Varieties

BARLEY is one of the oldest known grains and is one of the grain crops of a hundred peoples throughout the temperate world.

Barley is grown in Europe, north of the Arctic Circle, and also on the plains of India. It is found on the plateaus of Tibet, on the slopes of Mount Everest and around the Saharan oases. It is cultivated high on the mountains of Ethiopia, and on the lower delta of the Nile; Arab farmers seed it on the dry hills of Northwestern Egypt and the Chinese grow age old varieties on their western hills. It is grown by Hindus, Turks, Japanese, Russians, Berbers, and western Europeans. It is described as man's most dependable cereal grain where alkali, frost, and drought are encountered.

The greatest acreage is found where more favorable conditions prevail. Briefly, it grows best where the ripening season is long and cool. This is particularly true in sections where the rainfall is high, for while barley will withstand much heat in the absence of humidity, it does not mature satisfactorily in hot humid weather. Moderate rainfall, rather than excessive rainfall, and well drained soils, rather than waterlogged or sandy soils, are desirable.

Because of its widely scattered producing areas and the variety of conditions under which it can be grown, it is only natural that barley should have been introduced in America at an early date. The development of barley production in America and the adaptation of Asiatic, European and African types to our varied climatic and soil conditions and market requirements makes an interesting history.

On the Sidewalks of New York

PARLEY was introduced in America by the early colonists along the Atlantic seaboard. Records of the United States Patent Office show it was raised by colonists of the London Company in Virginia as early as 1611. By 1648 it was grown in abundance by that colony, although it was displaced shortly afterward by the more profitable production of tobacco. Barley was cultivated in New Netherlands by the colonists on Manhattan Island as early as 1626. It was introduced in Massachusetts Bay Colony in 1629. In 1796 barley had become the chief agricultural product of Rhode Island.

By M. E. GRANT, Manager Barley Department, Brooks Elevator Corp., Minneapolis

Before Society of Grain Elevator Superintendents

Because their soils were somewhat better suited, the New England colonies were more successful than those farther south in raising barley. It was not until the westward expansion had reached central New York, however, that a combination of favorable soil and climatic conditions was found.

In the early colonies and in the westward expansion of the settlements barley was always planted and considerable acreage developed near all of the large centers. This was in response to a demand for a grain for brewing. Often it was grown in districts to which it was not well suited.

By 1840 barley was being raised as far west as Missouri and Ohio to meet the brewing demands of St. Louis and Cincinnati, although the production was greatest in New York state, particularly along the Erie Canal, where it could be raised profitably and easily transported to Albany, New York, and other city markets. As typical of the areas in which barley production was attempted with little success because of unsuitable conditions, St. Louis may be cited. For while in 1840 Missouri ranked next to New York in production, by 1850 Missouri was no longer among the major producing states, having been displaced by states such as Ohio, Wisconsin, and Pennsylvania, New York still being far in the lead. In contrast to the

St. Louis area, the Wisconsin area around Milwaukee expanded rapidly due to the Milwaukee and Chicago demand and to conditions particularly favorable to obtaining large yields.

Gold Rush Boosts Demand

PY 1860, the relative production by states had changed considerably, California having become the major producer. Barley had been introduced in California during the Spanish invasion and mission settlements in the early 18th century. The districts in which it was grown were well suited to barley production and it was the best grain which could be grown successfully for feed. In 1848 the discovery of gold in California and San Francisco's rapid growth in population brought a strong brewing demand and a resultant great expansion of barley acreage.

At the end of the next decade, 1860 to 1870, the total United States barley production increased from about 16 million bushels annually to 30 million. California and New York remained the most important producing states, but there were notable increases in southern Wisconsin and northern Illinois. It became commonly cultivated in southeastern Minnesota and its culture was begun in Oregon and Washington, in the southern part of the Great Plains area, and in the mountain states. The years 1870 to 1880 saw a continued development of the producing areas outside of New York State and another 50% increase in the annual production over that of the previous decade.

By 1890, the production increased another 80% annually, the producing centers with large acreages grown as a cash crop being western New York, eastern Wisconsin, southeastern Minnesota, western Iowa, and central California.

The tariff of 1890 which increased the duty on barley to 30 cents a bushel resulted in the gradual elimination of New York as a major producer. Western New York, up to this time, had been a great malting center, drawing large quantities of barley from Canada as well as all that could



be produced in western New York. The new tariff made importation from Canada unprofitable. Also the malting houses in Wisconsin and Minnesota could ship malt to the Atlantic seaboard more cheaply, because of its lighter weight per bushel, than barley, than the eastern malt houses could buy barley for malting. Consequently, the malting industry was gradually transferred from New York to Wisconsin and neighboring states, which diminished the barley market in western New York; and this, with the growing competition of other crops, reduced the acreage.

By 1900 New York was no longer a large producing center, but its loss of acreage was more than offset by the expansion in acreage along the Red River in the Dakotas and Minnesota and in eastern Oregon and Washington. Total United States production had increased to 120 million bushels.

Prohibition Fails to Dampen Expansion

THE acreage in the Red River Valley expanded enormously in the next ten years. Minnesota became the leading producer, and it, with the Dakotas and Wisconsin, produced the large proportion of the United States crop which in 1910 was about 175 million bushels.

After 1910 the acreage in southeastern Minnesota decreased in favor of more diversified farming. The prohibition law of 1919 reduced the malting demand, and this with the extensive displacement of barley acreage by wheat with its high war time prices, and a general low acre yield in the northern Mississippi Valley, brought the total yield in the United States down to 122 million bushels in 1920.

While it would be expected that a reduced barley acreage would have continued for the duration of the prohibition era, it actually increased, with some irregularity, so that by 1928 a record yield of 328 million bushels was produced. This increase obviously was the result of greater appreciation by the farmer of the value of barley as feed as well as a cash crop. For according to present trends, with continued large annual acreages, only about one-fourth of the crop is used by the malting industry. Added to this greater use as a feed are other factors, such as new producing areas and the development of new varieties better suited to the individual requirements of the producing areas.

There are four commonly designated growing areas in the United States in which certain types of barley are best adapted for both yield and quality. The boundaries of these areas are intangible and fluctuate from year to year according to the season, but in general these regions are separated on a basis of rainfall and temperature. The four areas are:

- (A) Those states north of the Ohio River, extending from the Atlantic seaboard to the northern Great Plains Area.
- (B) The states of the northern Great Plains.
 - (C) The southern states.
- (D) The states west of the Rocky Mountains.

Climatic Variations Confine Varieties

IN the states east of the Rockies rains occur during the growing season. The northeastern states are characterized by a moderate summer temperature and an ample summer rainfall. This region includes the Upper Mississippi Valley States which constitute the most important barley producing center in the United States. supplying about 50% of the total crop and most of the malting demand. On the northern Great Plains, there is summer rainfall, but the quantity is much less than in the northeastern states, and droughts are frequent. In the southern states, the summers are hot and the winters sufficiently mild for growing winter varieties. West of the Rocky Mountains the rainfall occurs during the winter season, and the crop ripens during hot dry weather. Because of these variations, barleys suited to one area are for the most part not adaptable to the other areas.

The varieties of barley raised in

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Just to prove that this is not exceptional, we cite a second 22" REXALL, installed elsewhere in his elevator in 1928. This belt also is going strong and both belts are good for much more service.

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these regions vary primarily according to the chief uses to which the crop is normally applied, the temperature and rainfall conditions, and the character of the soil.

Barley is used for four major purposes: brewer's and distiller's malts, pearled barley, export, and feed. Malting barley has always been attractive to the farmer because it is a cash crop and because of the premium it brings. However, the malting market is an extremely critical one, and the maltsters' requirements are so rigid that not more than 40% of the crop is acceptable for this purpose; even in years when growing conditions are most favorable. Briefly, the malster wants a clean, plump, mellow, well-matured barley with firm hulls not easily damaged, and with relatively high diastatic power—these qualifications in addition to the requirements of the Grain Standards Act for the class "Malting Barley." Black barleys, broken, damaged or skinned kernels, or kernels with frayed ends, all are objectionable to the maltster.

Further, the nature of the malting process is such that the kernels must be of one size, of equal soundness. Different types and varieties, even when grown under the same temperature, rainfall and soil conditions, vary in these characteristics. They germinate differently and cannot be malted uniformly when mixed. Consequently, unless the yield of a particular variety is large enough to supply the maltsters who rely on that region for their barley, it is generally unsatisfactory in that region as a malting barley.

The result of the malsters' rigid requirements is that relatively few varieties are grown and accepted for malting purposes. The major part of the crop, therefore, even in the malt barley growing areas, is used for feed. It is easier to produce a feed than a malting barley. The farmer is not concerned with diastase, kernel size, popular market variety, or fraying hulls. Securing the greatest possible amount of feed from an acre of land is his only objective.



Almost Equals Corn as Feed

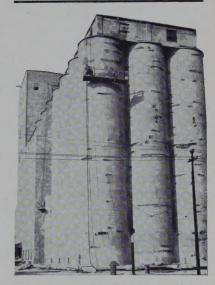
BARLEY fits in well with the systems of agriculture practiced in most of the areas to which the crop is adapted. It can be fed to all classes of livestock and is increasing in popularity with the dairy farmer. It is almost the equal of corn as a feed. To serve satisfactorily as a feed the kernels must be coarsely ground or rolled, the latter method being ideal and much used in the western states.

The export market is confined almost entirely to certain varieties best adapted to the region west of the Rocky Mountains. England furnishes the chief market. (The requirements of barley for pearling are essentially the same as for malting purposes.)

The varieties of barley now popularly grown in the United States, almost without exception, selections of strains or hybrids from types which date back thousands of years. It is believed that all types originated in the dim past somewhere in Asia.

There were no barleys here when North America was discovered, but the immigrants apparently always brought their own seed grains which were usually found not well adapted. However, the six-rowed Scotch barley brought into western New York was well suited to that region. The same was true in the Upper Mississippi Valley, first with Scotch, then with Manchuria and Oderbrucker. These last two varieties, it is believed, were originally identical, both being sixrow and rough-awn, with white and bluish kernels. Both were moderately tolerant to summer heat and humidity. While they came from Germany, it is probable that both originally came from Asia, Manchuria more recently. Both were good malting barleys. Selections of best strains, with hybrids have replaced the original strains to eliminate the undesirable characteristics, with the result these selections and hybrids constitute most of the malting barley acreage today. Another introduction was Stavropol, brought by the Russian immigrants who settled in Kansas. Stavropol is a six-row, rough-awn, blue kernel barley well suited to that area, but not popular for malting purposes.

White Syrna, a two-row, roughawn, white kernels barley was introduced from Turkey in 1901. It is particularly well suited to South Dakota, Colorado, and California. Odessa, a six-row, rough-awn variety, was brought from Russia in 1914. Trebi, a six-row, rough-awn, blue kernel variety, was introduced from Russia in 1918. It is a feed barley of exceptional vigor and high yield, grown throughout the Upper Mississippi Valley and Rocky Mountain states. Lion, another import from Russia, is a six-row, smooth-awn, black kernel variety which should be mentioned, for while it is of no commercial importance, it has been used repeatedly



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Hybrids Supplant Original Strains

A FEW selections of varieties have come to be of commercial importance. Minnesota 184, a selection of original Manchuria made in 1918, is a six-row, rough-awn, white kernel variety. It is superior in yield and malting quality and resistant to disease, but is being supplanted by more recently developed hybrids.

While these importations and strain selections were being made, government and private breeders were beginning to combine the best qualities of these various types to overcome and eliminate problems involved in the natural varieties. Lodging, winter hardiness, yield, feed requirements, malting quality, color, and disease resistance, all involved problems which are approaching solution as the result of the breeding projects. Probably the most important accomplishment of recent years has been the breeding of smooth-awn varieties.

Rough-awn barleys, like Manchuria, Odessa, Oderbrucker and O.A.C.21, are of harder quality and high in diastatic power which adapted them for distiller's malt rather than brewer's molt. Barleys of the smooth-awn type develop and harvest better, they do not shatter as badly as the roughawn forms, and they appeal more to the farmer. Lion was previously mentioned as an importation not satisfactory for commercial use. However, it is a smooth-awn variety, and it has been crossed with older commercial varieties to obtain at least four hybrids which are now of great commercial importance.

Velvet, a six-row, smooth-awn, white kernel variety, was obtained

by crossing Manchuria on Lion, and then the segregate on Luth (a Manchuria selection). This variety was released in 1926. It produces a high yield and is of fair malting quality. Glabron, another Manchuria - Lion cross, highly resistant to disease, was released in 1929. Neither one of these, however, are popular with the malster.

Wisconsin Pedigree 37 and 38, sixrow, smooth-awn, white kernel varieties, were released in 1930. They were crosses of Wisconsin 5 (an Oderbrucker strain) and Lion. It is very mellow and gives the brewer a high extract malt which usually is low in diastase. Wisconsin 38 is becoming the most popular and widely used barley in the Upper Mississippi Valley because of high yield, resistance to disease, and good malting quality. Comfort and Short Comfort are other crosses of Manchuria, Lion-and Luth grown less extensively in Nebraska and Pennsylvania. Manchuria and Oderbrucker are now looked upon with favor by the malsters and brewers for brewer's malt. A movement is on foot to increase the acreage of these two varieties.

Prejudice Against Steel Blue Color

In the upper Mississippi Valley blue barleys are not favored for malting purposes. The impression is that the color is an indication of steeliness, and undesirable malting quality. This impression appears to be ill-founded, however, for O.A.C. 21, a blue barley of Canada is fully satisfactory to Canadian brewers; and the only American barley that brings a premium on the English market is the blue barley of the Paficic Coast. It is said that when Atlas, a Coast selection, was introduced, the English buyers com-

plained that it was not blue enough. American maltsters continue to demand the white kerneled varieties, almost without exception.

It is probable that the barley growing centers will remain roughly where they are today. However, the tendency, with the continued development of new varieties, will be for these centers to spread out to the limit that barley does not compete with other more profitable grains. For the value of barley as a feed is now becoming well known to the farmer. The growing of barley should be continued on a basis free from violent shifts of acreage due to large premiums or lack of premiums for malting barley. This will of course depend on the combined judgment of the individual

The malting barley requirements of the United States run between 55 to 65 million bushels per year, while barley production runs between 265 and 328 million bushels annually. It is self evident, therefore, that approximately only 25% of the crop is used for malting purposes; the balance for feed, less seed requirements. Assuming that 40% of the annual crop is suitable for malting purposes we find we have twice as much malting barley each year as our requirements call for. It would, therefore, seem like good farming to plant the variety of barley which would produce the greatest number of bushels per acre irrespective of its suitability for malting purposes.

When our annual crop ran around 175 million bushels, our malting requirements were larger than they are today, and the parity between supply and demand for malting barley was much closer. The result of that close parity was to pay a premium for the good malting grades, but today there is such an excess of malting barley that there is no necessity for paying a high premium for it. Consequently, the range of values has narrowed up.

There is, however, one class of barley which can be planted with a reasonable assurance of securing near top prices; that is, rough-awn hard varieties-Manchurian, Odessa or Oderbrucker. As long as the world continues in conflict there will be a demand for pure grain alcohol. These varieties make a malt of high diastatic power, which is desirable for manufacturing alcohol. Our own defense program will undoubtedly mean the purchase and storing up of immense quantities of alcohol, in addition to the usual distillery requirements.

As employment or gainful occupations increase, the demand for beer will increase. So, taking a quick peek into the future, I see several years of prosperity for the malsters ahead of them, which means business for the grain terminals, as well.

Until you try you don't know what you can do.



Grooming The Green In Jig-Jime

JOB Instruction
Training, I
have been told,
originated during
the first World
War and was
sponsored at that
time by the government. At the

studden conclusion of war, however, the government became disinterested in its further development. But during the years intervening between the two world wars, representatives of many of the nation's largest and most progressive industrial organizations nursed its development and eventually outlined an extensive one-year training course for supervisors—which was later condensed into a ninety-day course.

Before Pearl Harbor, when our defense industries were already feeling the need for competently trained



workers and consequently faced numerous manpower problems relating to personnel, safety and production questions, the government stepped in again and took advantage of the training program which had been so effectively developed by men in industry. More recently the War Manpower Commission, through one of its services, TWI (meaning Training Within Industry) has set up three training programs: JIT, JMT, JRT, each of which is available to all war industries. But it is only the first of these which I will discuss, namely Job Instruction Training.

Simplest Common Sense Method

JIT is a program of training for supervisors, foremen, or any key men who train others or give orders. Its purpose is to present a sure-fire method of effectively and thoroughly instructing workers, either new or

By CLIFFORD A. MacIVER, Assistant General Super Archer-Daniels-Midland Company, Minneapolis

Before Society of Grain Elevator Superintendents

present workers, or displaced workers. After it has been presented to you I'm sure you will agree that it is the simplest common-sense method of instruction you've ever seen applied. More than 7,000,000 workers have been trained by this method in over 8,000 plants. It is being used successfully in the mines on the Mesabi Range, in the hospitals of Minneapolis and Rochester, in the meat packing plants of Iowa, and in the offices of a life insurance company at Des Moines. County agents have been trained at the University of Minnesota, and they in turn have passed their training on to Northwest farm-

In order to most effectively impress you with the nature and procedure of JIT, I will assume that I am a War Production Trainer, training you whom we will regard as a group of ten supervisory employees of an industrial plant. This training is always limited to a group of no more than ten. After devoting some time to putting you at ease and making you comfortable, I would attempt to develop your interest by presenting a few introductory remarks similar to what has already been given you. It should not be hard for me to convince you of the need for an effective training program at a time when competent and experienced workers are no longer seeking employment, and when we are literally scraping the bottom of the barrel and finding no more rosy

A review of an extensive list of manpower problems would serve to emphasize the need for immediate action. Many of these problems could be solved or at least helped if you had a better-trained work force. Competence as a good training man is one of the most important qualities of a good supervisor. If you are a good supervisor, you must be a good trainer; otherwise you are only a troubleshooter running around patching up, correcting mistakes, and facing more new problems.

Now, Job Instruction as it is regarded in this JIT program is just purely and simply

"How to get A man to do A job correctly, quickly, conscientious-

We might put that on the blackboard to make it more impressive and then let us consider that getting each man to do each job correctly, multiplied by all of the men in your plant represents much of the answer to war production and the solution of your problems.

If Worker Hasn't Learned, Instructor Hasn't Taught

66HOW do we get A man, either new or experienced, to do A We usually TELL him, don't we? But TELLING when used alone has its limitations. At this point in our first session as trainer I would instruct one of you how to tie the Fire Underwriters' knot to thoroughly demonstrate the limitations of the method of TELLING. Next I would attempt to SHOW one of you how to tie the knot without any supplementary instruction and thereby demonstrate the limitations of SHOWING when it is used alone. After the demonstration and explanation of these two faulty methods of instruction, let me emphasize that IF THE WORKER HASN'T LEARNED, THE INSTRUCTOR HASN'T TAUGHT.

At this point now I must demonstrate the correct sure-fire JIT method of instruction by instructing another of you how to tie the Fire Underwriters' knot; I'll use these four basic steps:





STEP I. PREPARE the worker to receive the instruction.

Put him at ease. Remember he can't think straight if you make him embarrassed or scared.

Find out what he already knows about this job. Don't tell him things he already knows. Start in where his knowledge ends.

Get him interested. Relate his job or operation to the final product, so he knows his work is important.

Put him in the right position. Don't have him see the job backward or from any other angle than that from which he will work.

STEP II. PRESENT the operation.
Tell him, show him, illustrate,
ask.

"Put it over" in small "doses." He (the same as all of us) can't catch but six or eight new ideas at one time and really understand them.

Make the "key points" clear. These will make or break the operation—maybe make or break him.

Be patient—and go slowly. Get accuracy now—speed later.

Repeat the job and explanation if necessary.

STEP III. TRY OUT his performance.

Have him do the job, but watch him.

Then have him do it again, but have him EXPLAIN to YOU what he is doing and why. All of us find it easy to observe motions and not really understand what we are doing. You want him to UNDER-STAND.

Have him explain the key points. Correct his errors, but don't bawl him out or indicate that he is "thick" or "dumb."

Continue doing all this until YOU know HE knows. He may have to do the job half a dozen times.

STEP IV. FOLLOW-UP.

Put him on his own. He has to

"get the feel" of the job by doing himself.

Tell him whom he should go to if he needs help. Make this definite yourself or someone you designate. The wrong person might give him a "bum steer."

Check him frequently—perhaps every few minutes at the start to every few hours or few days later on. Be on the lookout for any incorrect or unnecessary moves. Be careful about your taking over the job too soon or too often. Don't take it over at all if you can point out the help he needs.

Get him to look for key points as he progresses. Taper off this extra coaching until he is able to work under normal supervision.

After reviewing and reconstructing on the blackboard this successful process of instruction which follows a definite but simple plan, the first session ends with an appeal for two volunteers to present at the next session instruction demonstrations as they normally would on the job, using the four basic steps as best they can, but without any special preparation.

Dons "Thick Skins"

FTER starting the second session with a brief review of what has been presented before and emphasis again on the keynote: IF THE WORKER HAS NOT LEARNED. THE INSTRUCTOR HAS NOT TAUGHT, then we get into the meaty part of the program with instruction demonstrations given by the two volunteers. Each volunteer demonstrator is cautioned to put on his "thick skin" and be prepared for constructive criticism from the other members of the group which will be supplemented by the trainer's criticism. These first demonstrations will cause us to realize that:

"We think we know a job when we really don't."

"We know it so well that we overlook the points that stump the learner."

"We often know it so well that we don't plan how to put it over."

Now let me enumerate and list on the blackboard four "How to Get-Ready" points which should be observed before we attempt the instruction:

- 1. Have a timetable.
- 2. Break down the job.
- 3. Have everything ready.
- 4. Have work place arranged.

The most important of these points is the job breakdown which is meant to help organize the operation in the instructor's mind and to serve only as a note by himself to himself and for himself. The job breakdown is an orderly listing of the important steps and key points of the job. Knowing what key points are and how to pick them out quickly and easily is perhaps the most important single thing in Job Instruction. Key points are

those things which make or break the job such as hazards, knack, feel, sound, timing, special motion or special information.

The How and Why

MY breakdown on the blackboard of the job of tying the Fire Underwriters' knot should clearly illustrate how and why the breakdown can be used effectively. This completes the second session and you now have the whole package of JIT literally wrapped and delivered to you. The other three sessions serve only to give every member of the group an opportunity to present an instruction demonstration and receive the helpful constructive criticism from the others.

In summary I wish to point out that I have provided the tools to solve or at least help in the solution of many of your problems through proper training, but you must actually apply the use of these tools in everyday practice to gain the benefit of this training. Your personal gains from this ten-hour training program consist of your Job Instruction Training, your personal contact with fellow supervisors, your certificate of recognition which you will receive from the War Manpower Commission, and your own satisfaction that you are now better able to contribute to the war effort. Our nation's gain will be increased efficiency in war production.

Remember that GOOD SUPER-VISION and GOOD INSTRUCTION are inseparable.

Let's never forget the keynote that IF THE WORKER HASN'T LEARNED, THE INSTRUCTOR HASN'T TAUGHT.

Almost one million work years were lost in American industry last year through illness. In a study of 1,000,000 cases, a leading medical authority found 66% had dental infection.

Of 50,000 workers in an aircraft plant, 92 per cent go to work by auto.



RECOGNITION for the Importance of DUST CONTROL

Ratings are now being granted for dust control equipment to protect grain handling plants from dust explosion damage.

Several recent serious dust explosions in the grain and milling industry have again directed attention to the wisdom and economy of efficient dust control. The cost of this protection is less than 1% of the damage losses suffered in many cases of dust explosion.

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One of many types of DAY installations at a grain elevator. The dust is discharged directly from the dust tank into box car below.

After The Accident,

TODAY we hear about national enemies and measures adopted to curb their activities, from many sources. When we speak of national enemies, one naturally thinks of for-



eign agents or saboteurs. I am speaking of a national enemy that is different. This enemy is just as potent, just as alert and with slinking, stealthy step watches for o ur unguarded moment. This ENEMY is called ACCIDENT.

There are numerous kinds and causes of accidents common to our line of endeavor. There is the employee who leaves tools carelessly strewn over the floor for a fellow workman to stumble over, or the fellow who thoughtlessly skips across the top of a box car, slips and falls to the ground. Then there is the fellow, who after eating lunch, strolls out to a shady spot and begins to pick his teeth with an old style match. After this operation he thoughtlessly tosses the match to the ground and forgets about it. Along comes Mrs. Sparrow, gathering material for her nest, spies the unburned match, quickly gathers it up and carries it to the cleaner floor or some other part of the work house and entwines it in her nest. Now Mr. Mouse appears on the scene, finds the match, and begins to nibble. Result is maybe a disastrous fire-and certainly an unsolved one.



WHAT?

Asks O. B. Duncan

Super, Salina Terminal Elevator Co., Kansas City

Recommends Safety Contests

J UST as precautions are taken to control our national enemies, some very fine preventive work is being done to curb this enemy called Accident. We have safety contests in numerous plants, where employer and employee often meet and talk over unsafe practices of some worker or some hazardous spot is brought to the attention of the boss.

After these meetings and exchange of ideas everyone is made more safety conscious. But it seems with all our safety talks, all our pleading for sane practices, accidents will occur. So,



after the accident, what? The answer to that question is First Aid. What is First Aid? The definition: "First Aid is the Immediate Temporary treatment given in case of accident or sudden illness, before the services of a physician can be acquired."

It is just as important in case of accident to know what not to do as it is knowing what to do. Let us assume that the man who was running atop the box cars falls to the ground, is unable to arise because of a broken leg, and is calling for help. An excited fellow workman suggests



that they lift the injured man to a standing position, thinking that probably he will feel better by being allowed to stand. The result will be a compound fracture, where it was possible the victim might have had only a simple fracture had he been given proper and trained First Aid.

It is not uncommon for a worker to become fatigued and "pass out" from either sun stroke or heat stroke. These two ailments sound very similar in name but are vastly different in effect. The treatment prescribed for one might prove fatal if applied to the other.

The American Red Cross will gladly send an instructor where you can get a sizable class. Anything that we may do to relieve human suffering and save man power hours is a humane deed at any time and certainly a patriotic one in the present crisis.

You can't go wrong by purchasing War Savings Bonds, but Cincinnati police believe that doesn't apply to Joseph W. Lazar. Lazar is accused of burglarizing a Westwood, Ohio, home and using the loot to buy War Bonds. He explained that he was turned down by the Army because of his eyesight and was anxious to do his bit for his country. Just a little too anxious, commented the police.



HOW THEY HAPPEN

A study of the types of injuries reported in the SOGES Annual Safety Contest indicates that we need more care in handling objects, states Clarence W. Turning, Contest Director. This type of injury was by far the biggest producer of lost-time for the months studied. Back strains from handling objects increased during the last quarter of 1943 until special mention seems desirable. Here is the record:

	% of	% of
	Medical	Disabling
Type of Injury	Cases	Cases
Handling Objects:		
Back strains	. 14.3	36.4
Other handling	. 34.3	9.1
Slips and falls	. 11.4	45.4
Eye injuries		0.0
Machinery	. 11.4	0.0
Bumped into	. 5.7	0.0
Falling objects	. 0.0	9.1
Infection		0.0
Miscellaneous	. 8.6	0.0
	100.0	100.0

Here's a resumé of some of the recently received reports:

- 1. Working in tank on ladder. Rung on ladder partially broken, causing man to fall.
- 2. Stooped over under bag chute. Bag fell from chute and bruised back.
- 3. Looking out window. Broke window and glass cut ear.
- 4. Removing canopy from car door. Tack pulled loose and struck eve.
- 5. Stepped out of car toward dock. Missed trucking plate and fell.
- 6. Standing on wooden horse to adjust feeder. Foot slipped, sprained knee.
- 7. Piling bags with man of different height. Strained back.

Wife: "It tells here, about a man giving his wife a \$500 fur coat. Nothing like that ever happens to me."

Husband: "No, and I was just reading where a man gave his extravagant wife a black eye. Nothing like that ever happens to you, either."

1943 Man-Hours Lost Tremendous

"In 1943, 56,800,000 man-days were lost from essential production and 18,400 workers died because of industrial accidents," according to Donald M. Nelson of WPB, "This vital blow at America's war production goes unrecognized by too many of us who were shocked into instant action by the loss of 3,303 lives among our armed forces at Pearl Harbor.

"Management, labor and government must eliminate the menace of industrial accidents, which yearly strike down a division of our soldiers of production. Such a defeat on the production line cripples our war effort just as certainly as a major military defeat in the field."

SAFETY RULES Millwright Department

- Never try to make repairs to a moving machine. Always stop the machine before attempting to make repairs.
- 2. Keep out from under all suspended loads.
- 3. When working on overhead machinery be sure that you have a substantial footing. Never try to reach out where there is a chance of losing your balance.
- 4. Place tools and material where they cannot fall.
- Always select the right tool for the right job. Never use a makeshift.
- Use only tools in good condition; no cracked or broken handles, none without handles, no tools with mushroomed or broken heads.
- 7. See that pipe wrench jaws are sharp and chains in good condition so they will not slip.
- 8. Always wear goggles whenever there is a possibility of flying objects or harmful substances.
- 9. After finishing a job gather up all tools and return them to their proper places. Be sure no object has been left on a machine or an elevated place from which it might fall.
- Always look in the direction you are walking. Be careful of the other fellow. Avoid taking unnecessary chances. Carry only what you can handle easily.
- Loose or long trouser cuffs are dangerous. Badly worn or illfitting shoes with loose laces are unsafe. Wear proper clothing for the job you are doing.
- 12. Always get first aid for every cut or scratch no matter how slight. Remember most infections start from small scratches.
- 13. Keep all oil, grease, grain, water or any other material that might cause slipping or stumbling cleaned up off the floor at all times.
- 14. Never push waste, scraps, or rubbish into corners. Help keep your department clean.

- 15. Never use boxes, benches, or other makeshifts instead of ladders. Never use broken ladders or one without safety spikes or rubber stops.
- 16. Never use any tool in such a way that if the tool slips it can injure hand or body.
- 17. Do not remove guards or other safety devices unless necessary, then replace them before resuming operations.
 - -Albers Bros. Milling Company.

Unusual Accident

We had quite a serious accident happen to one of our older employes, Ralph Stephens, our spout man upstairs. He was moving a belt tripper from one bin to another when the cast iron arm holding the tripper-clutch arm broke and threw him off balance, causing him to fall over a three foot guard rail into a bin 80 feet deep.

This bin had about three feet of wheat on the bottom, which somewhat cushioned his fall when he hit the bottom. It had many tie rods in it, still Stephens struck only one of them a glancing blow.

He was able to crawl out of the manhole at the bottom of the bin by himself. His only injuries were a separated pelvis bone and torn ligaments of the knee. He had no bones broken.

The accident was one of those freaks. The arm that broke was cast iron ¾ inch thick by 3 inches wide, and the break showed no flaws or signs of a previous crack. It could not be called carelessness as there is no other way to move the tripper except by operating this clutch.

We can all say one thing, that a man is very lucky that can fall 80 feet and still live.—Vincent Blum, Super, Omaha Elevator Co., Council Bluffs, Iowa.

HELP BRING THEM HOME!

What do our men wish most as they battle their way into Hitler's Europe and toward the heart of cruel Japan?

"U. S. earth to stand on." That's the way one American fighting man answered the question. That means homecoming. You have the power to bring them home sooner. Even a few hours sooner will mean more of our boys marching off gangplanks to your arms, instead of into machine gun fire.

They are your boys, boys from virtually every home in the land. They're away only because you're in danger and as soon as they rid you of that danger they're coming home.

Your War Bonds are their tickets home. Buy another \$100 War Bond today. The Third War Loan is your urgent business.

THE SAFETY ENGINEER'S PLACE IN THE WAR EMERGENCY

A T NO time in our industrial history was there ever a greater demand for the services of the Safety Engineer and his special training in the prevention of accidents resulting in the unnecessary loss of life, personal injuries, damage to costly machinery or destruction of entire plants.

In our haste to get out maximum production we frequently overlook common sense safety—and in some cases it is wise to make haste a little more slowly, especially when so much is at stake like an entire armament plant.

Our memories are fresh with the unnecessary disasters, such as, the Normandie; Burlington (Iowa) armament plant, and only too numerous other disasters due to lack of safety practices. These terrible uncalled-for disasters were not due to lack of necessary knowledge or ignorance; they were caused by disregarding the safety engineer's recommendations.

In some of the cases where a fire or explosion occurred the management had full knowledge of the conditions, however did not think they were outstanding and were not given the consideration that should have been given the recommendations. These bad conditions of safety occur where the safety engineer or safety inspector is subordinated to an inferior position in the plant personnel.

Usually a junior foreman or office man is given the position of safety man without authority or jurisdiction of any consequence and of course his recommendations are most often over-ridden or ignored by his immediate superior. Where the very life of persons are concerned or the destruction of a million-dollar war plant depends on the general plant safety it is common sense to provide the best brains for safety and with the necessary authority to prevent unnecessary disasters which plays so important a part in winning or losing a war.

We are going to have a hard time winning a war when we spend millions of dollars erecting an armament plant only to have it blow up and kill experienced workers because the safety engineer has no authority to stop unsafe practices. The same applies to grain handling and processing plants.—H. W. Puetz, Safety Engineer.

EXPLOSION KILLS THREE

No. Kansas City, Mo., Feb. 18.—A disastrous dust explosion in the 500,000 bu grain elevator of the Larabee Flour Mills Co. today killed three and injured sixteen—five seriously. Another three workmen are unaccounted for, but are believed to be buried in the basement of the plant beneath the debris. Two blasts occurred in rapid succession.

MAJOR FIRES OF '43 BESPEAK REDOUBLED EFFORTS IN '44

With one of the most costly fire records during 1943, the National Fire Protection Ass'n—of which the Superintendents Society is an active member-calls for redoubled efforts to reduce to the lowest figure possible the industry's loss in 1944. Sorely needed is every grain handling and grain processing plant on this continent for the important contribution each makes to the war effort. Not one unit can be spared at this time. No one can be so profitably busy otherwise that fire hazards can be ignored, nor that good housekeeping can be slighted, plead the authorities. Here is the 1943 record—just the highlights—as set forth by NFPA. The total is something to remember:

Feb. 23—Ft. Worth elevator,	
flour mill	\$1,930,603
Feb. 28—Oakland belevator, cereal-feed-flour mill	2,098,691
Mar. 7—Lowell, Mich., flour mill.	200,000
Mar. 29—Pekin distillery making gov't alcohol	295,000
Mar. 31—Cairo soybean and cottonseed oil mill	1,653,000
Apr. 24—Portage la Prairie, Man., grain elevator	300,000
June 18—Massillon, O., cereal, feed-flour mill	750,000
June 29—Tacoma feed mill	117,500
June 30-Concord, N. H., grain	
elevator	
tor	
July 26—Indianapolis corn refining plant	212,000
July 30—Chicago grain elevator, soybean plant	575,000
Aug. 2-7—Buffalo soybean oil plant	
Aug. 11—Lucasville, O., feed mill	82,701
Aug. 17—Great Falls wheat warehouse	100,000
Aug. 22-Minneapolis feed, flour	
mill	
warehouse	181,000
Sept. 7—Minneapolis grain, meal, oil warehouse	111,000
Oct. 2—Moorpark, Cal., grain, bean warehouse	1,000,000
Oct. 5-Dallas, Ore., grain elevator	100,000
Oct. 9-Welington mill elevator.	300,000
Oct. 11-Pittsburgh grain eleva-	
tor and feed	
Total	\$8,906,495

Listed among causes for the above are: dust explosions, inaccessibility, sprinkling systems disrupted, inadequate water supply and/or pressure, unprotected vertical openings, overheated motors, mired and isolated roads leading to fire, delayed fire alarms, overheated bearings, exposures, no watchmen or alarm services, accumulated dust igniting by electric welding sparks falling into empty bin, unprotected runways between buildings, lightning, smoldering fires in cookers or driers and in steel exhaust duct system of expeller plant, spontaneous heating of crushed soybean dust on steam pipes in driers, ignition

of accumulation of corn germ in germ drier, spark ignites choke, and spontaneous ignition of distillers' grains.

Many of these plants were working on government and lend-lease contracts. This lost capacity, plus the destroyed raw material, is irreplacable. The number of fire and explosion losses not included in this list would doubtless treble the above figure—a loss none can afford.

APPROVES STATIC ELIMINATOR

It is regretted that due to pressure of other work the writer has been unable to answer your inquiry concerning the advantages of the Western Brush Company's static eliminator. We appreciate your having them send us a sample of their product, which appears to have considerable merit.

As soon as we learned of the availability of this equipment, we notified two of our plants, so that they could make a test installation in order that we could gain some experience with the product in question. To date we have had no adverse criticism to this product and there are certain locations where it can be used to prevent accumulations of static electricity to good advantage.

Several months ago the question of grounding the buckets on grain elevators was discussed by you with Dr. D. J. Price and Hylton R. Brown of the U. S. Department of Agriculture, and you mentioned that you were not in favor of using a wire braid for this purpose [as required by the National Fire Protection Ass'n's code for eliminating static] due to the possibility of its becoming broken and introducing a new hazard.—E. J. Meyers, Chairman, NFPA Committee on Static Electricity, E. I. du Pont de Nemours & Co., Inc.

The average automobile, when dismantled for scrap, yields 1,500 pounds of iron and steel, 30 pounds of copper, 6 pounds of aluminum, and 50 pounds of reclaimable rubber.



Snooper, The Boiler-Room Cat, says: Keep men on the job through safe working conditions and thus help the men at the front come through to win.—C. Gibson Franks.

DEDICATE GRAIN-RUBBER PLANT

Omaha, Neb.—Dedication and the beginning of operations of the world's largest single unit grain alcohol plant took place Feb. 21. Built the past year by the Farm Crops Processing Corp. of Nebraska, the \$5,000,000 plant was financed by the Defense Plant Corp., and sponsored by the War Production Board. The plant will employ 300. Officers of the company include J. L. Welsh of Butler-Welsh Grain Co., Omaha, vice president. Widely known Senator Hugh Butler, former partner in this grain company, attended the dedication.

The entire annual output of 17,500,000 gals of grain alcohol will be taken for the war's duration by the Defense Supplies Corp. for the production of synthetic rubber, explosives, and other war needs. In addition to these farm chemurgists have developed more than 700 peace-time uses for grain alcohol and its derivatives, including plastics, medicines, dyes and aviation fuel.

The plant will require an estimated 7,000,000 bu. of grain annually. It will process 20,000 bu. daily, using 45% corn, a like production of wheat, and 10% barley malt. Each bushel of grain produces 2½ gals. of alcohol plus such valuable by-products as corn oil, highly concentrated livestock feed, etc.

First step in manufacturing the grain alcohol is the cleaning process which removes tramp metals and other impurities from the grain. It then goes through a set of three mills for grinding before being hoisted into huge tanks for 40 minutes of precooking with live steam. The next step is pressure cooking, after which the mash is pumped into flash tanks for cooling. From there on the process parallels the usual distillation methods.

Can State Company's Position

Without being held to have violated the Wagner act, employers can sometimes make statements to their employes setting forth the facts regarding negotiations with a union. Charges of unfair interference arising from a letter one employer addressed to strikers, stating his position in bargaining negotiations and advising them that they need not join a union to keep their jobs, were absolved by WLB.

She Can't Do It Legally

An employer cannot permit the wife of a foreman, even if she is not an employe of the company, to distribute anti-union propaganda, a federal circuit court of appeals upholding an NLRB ruling that she is an "employer" within meaning of the Wagner act.

Can Ban CIO Electioneering

Employers who object to CIO political activities and fourth term electioneering by union members in their plants may appeal to the regional WLB to stop it, according to Edgar L. Warren, Chicago regional chairman.

"The board has never taken the stand that it can or should order a company to pay workers for activities other than production or operational and I do not believe that it will do so," he said.

Production Restrictions Off

You can probably get WLB approval for plans to get rid of union restrictions on production for the duration of the war. The Detroit board permits shops to disregard limitations on overtime work by allowing 16 overtime hours in the first 6 days of work week, plus another 8 hours at double time on the seventh day, in case of emergency.

Can't Withhold Income Tax Liability

You cannot reach a voluntary agreement with your employes to withhold their income tax liability if their wages and salaries are not subject to withholding under the law. The Treasury rules that permission cannot be granted to employers to make this voluntary withholding.

THE TEN DEMANDMENTS

- 1—Don't lie. It wastes our time and yours. We are sure to catch you in the end, and that end is the wrong end.
- 2—Watch your work, not the clock. A long day's work makes a long day short, and a short day's work makes our face long.
- 3—Give us more than we expect, and we will give you more than you expect. We can afford to increase your pay if you increase our profits...
- 4—You owe so much to yourself that you cannot afford to owe anybody else. Keep out of debt or keep out of our shop.
- 5-Dishonesty is never an accident. Good men, like good women, never see temptation if they meet it.
- $6\mathrm{--Mind}$ your own business and in time you will have a business of your own to mind.
- 7—Don't do anything here which hurts your self respect. An employee who is willing to steal for us is willing to steal from us.
- 8—It is none of our business what you do after hours, but if dissipation affects what you do the next day, and you do half as much as we demand, you'll last half as long as we expect.
- 9-Don't tell us what we like to hear, but what we ought to hear.
- 10—Don't kick if we kick. If you're worth correcting you're worth keeping. We don't waste time picking specks out of rotten apples.

NUMBER ENGAGED!

A man bought a parrot and tried to teach it to take. Going over to the bird, he repeated for several minutes the word, "Hello, hello!"

At the end of the lesson the parrot opened one eye and answered, drowsily, "Line's busy."



WESTERN BRUSH COMPANY

35 S. Market St.

Chicago 6, III.

OPA Powerless to Discipline

A shutdown ordered by OPA for violation of (ration) rules is "pure dictatorship" in the eyes of a federal district court. If upheld, you cannot, as a businessman, be forced to suspend operations.

No Excessive Raises Allowed

Wage raise appeals based upon aiding the war effort will not be allowed by WLB where same might tend to unstabilize rate for the industry in the affected area.

In Minnesota, "mining" of city dumps for scrap metal turned up 700 tons of metal at Winona, 600 tons at Sioux Falls, 400 tons at Meryill.

Can't Always Raise Pay

One cannot always raise one's employees' wages to meet industry-wide wage scales. In one case NWLB rejects a request for an industry-wide scale in favor of prevailing wage rates for the same type of work in the same area.

No Criterion

As an employer you cannot gear your wage rates for a new plant to conform to rates prevailing in plants operated by your company in other areas. WLB has ruled that rates must conform to those prevailing in the area where the new plant is located.

Cannot Always Correct Inequalities

You cannot always count on WLB to allow you to adjust a wage inequality in your plant. One regional WLB ruling denies such an adjustment on the ground that an upward boost would pierce going-wage rates in the area, while a downward change for the highest-paid workers would cause complications.

Raises Possible For Improvement

You can, under certain conditions, give individual wage and salary increases as a reward for improved work if you employ 30 or fewer people. WLB will permit such increases as long as they are limited to 10c a straight-time hour for individuals, or 5c as an average in the plant, and will not be used as the basis of an application to make further increases to elimate inequalities. Other conditions are that such increases shall not result in a rise over the highest pay rate between July 1, 1942, and June 30, 1943, and shall not add to costs so as to justify a price increase.

Customary Raises Allowable

A company can continue to follow its usual program of merit and length-of-service increases for salaried employes under jurisdiction of the Treasury, as long as such increases do not result in raising the average salary in any given range by more than 3%, even if Treasury rules seem likely to change. Official policy is to permit approved plans to continue in operation until they are disapproved and not to make any retroactive changes.

Can Pay Bonuses for Suggestions

You can pay employes cash awards or bonuses for suggestions designed to increase production, without obtaining approval from WLB. The reward must represent a genuine award for additional effort on the part of the employe and must not be in excess of the value of the contribution to production, according to a ruling by the Board's general counsel.

No Overtime Guarantee

Unless the employes accept the arrangement, you cannot guarantee a definite amount of overtime to your employes instead of giving them a raise under the WLB's "little steel" formula. A regional board holds in one case that an overtime guarantee is no substitute for the allowable "little steel" increase that the employes sought.

Salvage Check-Off

Because the union itself punished strikers by levying a fine, WLB ruled in one case that the maintenance-ofmembership clause in the labor contract should continue.

Treating INFESTED Grain that Cannot be Turned

Conceding the all around excellence and many advantages of LARVACIDE for Grain Treatment, some of our friends, particularly operators of country elevators, have asked us to make LARVACIDE available in a form

TO TREAT GRAIN IN SHALLOW BINS BY TOP APPLICATION

Now this form is available under the trade name of



You'll find it toxic to granary insects, including weevil, lesser grain borer, and the elusive mite, and you'll also find it economical. Treating corn in good condition costs \$2.60—2.75 per thousand bushels . . . and wheat is just a little higher. Like Straight LARVACIDE, this new form also takes care of rodents, driving them out to die in the open, without carcass nuisance.

LARVACIDE 15-MIX comes only in 50-gallon Drums

FOR GRAIN THAT CAN BE TURNED

use Straight LARVACIDE . . , the most economical fumigant we know, where



good kills must be had. Cost is, we believe, the lowest on record. Only \$1.50-1.75 per thousand bushels, in closed concrete bins. Straight LARVACIDE comes in 25-180 lb. Cylinders and 1-lb. dispenser bottles.

Write for literature giving information needed by every operator.

INNIS, SPEIDEN & COMPANY, 117 Liberty Street, NEW YORK 6 Established 1816

BOSTON . CHICAGO . CINCINNATI . CLEVELAND . OMAHA . PHILADELPHIA

Okay to Hire if Available

You can hire occupationally deferred seasonal workers and they may migrate without losing their occupational deferments. Tighter controls over labor supply can be expected in an increasing number of areas, WPB delegating board authority to APUC to issue priorities on materials, and to review facilities and new contracts in labor-shortage areas.

Overtime Pay New Headache of 48-Hour Week

Firms whose employees come under the WMC's 48-hour week but aren't covered by Federal wage-hour legislation or by union contracts are required to obtain WLB approval before paying time and a half after the 40th hour, but may pay for the extra hours at usual rates without board approval.

Time Clock Governs

The working day of employes cannot be measured by the amount of time they actually spend at work, the work day beginning and ending at the time clock.

No Senriority Loss

You can perhaps count on WLB assistance in solving seniority problems in your plant. One regional board rules that workers, promoted to be foremen, should retain their union seniority privileges for the duration of the war and three months thereafter. Purpose of the order is to enable management to promote workers from the ranks without forcing those workers to give up seniority rights.

The collectors were pressing down on Rastus Jones during a drive for church funds. "Ah can"t give nothin'," pleaded the old Negro. "Ah owes nearly everybody in dis here town already."

"But," said one of the collectors, "don't you think you owe the Lord somethin' too?"

"Ah does, indeed," said the old man, "but He ain't pushin' me like ma other creditors is."

STRONG ASSOCIATIONS NEEDED

Just because your secretary may give a favorable report on the number of members at the annual convention, don't think that you are relieved from the obligation of securing new members. Many grain and feed men are only waiting for some member to invite them to join.

Everyone agrees that in union there is strength and that at the present time we need strong trade organizations. Help put your business in a more secure position by getting new members for your trade association.—
W. D. Flemming, Sec'y Northwest Feed Dealers Ass'n, Minneapolis.

SEND IN YOUR ITEMS

Other readers of "GRAIN" enjoy reading about you and your activities, just as you like to know what's going on elsewhere in the industry. When something happens—or when you're interested in making something happen—drop us a line with the facts. It needn't be fancy; just tell us who, what, when and where. It's passing on and sharing what we all know and do that helps to make the industry the best dawgone one on the continent. Send 'em in, boys.

He who sidesteps a duty avoids a gain.

GETTING READY FOR YOU

Gordon Laugen, Archer-Daniels-Midland Co., President of the SOGES Chicago Chapter, was selected as General Convention Chairman for the annual SOGES convention, billed for Chicago June 15-16-17th. Steve Halac, Glidden Co., Chapter V.P., was made Assistant General Chairman.

Russell Maas, Screw Conveyor Corp., heads the Housing Committee, and reports booking accommodations for 250 at one of the city's best hotels.

He: "Going my way, baby?" She: "Sir, the public is no place to accost a girl who lives at 215 Central Park Avenue, Circle 9-0412."

CARLOADINGS FAIL TO TAPER OFF

Contrary to predictions of a 3% decline in carloadings of grain and grain products during the first quarter of 1944, to date an increase of 11.8% over 1943 and 29.3% over 1942 is reflected. Figures are reported for the weeks ending:

							1944	1943	1942
Jan.	15	į.					57,442	53,307	45,737
Jan.	22	į	ļ,	į.			58,857	45,284	47,201
Jan.	29	i					55,815	49,924	47,629
Feb.	5					٠	55,270	52,018	41,317

WHEAT GRIND UP

During December, 994 mills ground 49,462,543 bu wheat compared with 48,698,529 bu ground the month before by 994 mills and 46,069,002 bu ground by 1,068 mills the year previous, according to the U. S. Dept. of Commerce.

For the first six months of the current crop year, 999 mills ground 275,-297,230 bu wheat compared with 264,-025,503 bu ground by 1,077 mills the previous comparable period.

Of the 994 mills reporting in Dec. '43, 28 ground 2,603,201 bu wheat for granular flour.

Grain Exports High

Export grain unloaded at tidewater during January totaled 3,244 compared with 2,411 in Jan. '43, or an increase of 35%.

Corn Grind Soars

During January, 11,364,015 bu corn were ground for domestic consumption by 11 refiners, compared with 10,694,440 bu in December, and 10,-118,141 bu in Jan. '43.

Soybeans Invade South

Purchases of 13,000,000 bu of '43 crop soybeans were made up to last month by CCC for crushing in southern cottonseed mills under contracts permitting the mills to retain 50% of the crush. Emergency allocations are being made from this 50%.

One of the best ways to keep a friendship is to return it.

Reasons for Using a STEINLITE



- 1. The Steinlite electronic moisture tester is Fast—a test can be made in one minute.
- It is Accurate . . . checked against official government oven methods.
- 3. Easy to Use . . . almost as easy as tuning in a radio.
- 4. Operates on the radio frequency impedance principle.
- 5. Inexpensive to operate . . . consumes no more electricity than a 40-watt bulb.
- 6. Portable (lightweight), neat and compact.
- Durable . . . made of the very best material . . . built to last.

Book Your Steinlite Order Now!

Delays are dangerous. Book your order now. Permit us to make shipment within a 60-day period just ahead of your busy season. Be sure of having your Steinlite when you need it. No down payment required . . . 10-day free trial.

"HEADQUARTERS" for all Grain and Seed Testing Equipment

626 BROOKS BUILDING

CHICAGO 6, ILLINOIS



TREASURY DEPARTMENT THANKS ADVERTISERS

FA S it is impossible for us to express our thanks personally to all the sponsors of War Bond advertising, I should be very grateful if you would convey to your advertisers the Treasury Department's appreciation for the very real contributions they have made and will be making in the future to the success of the War Bond program."—E. R. Sloan, Executive Director, War Savings Staff, Treasury Department, Washington, D. C.

IMMIGRANTS

The Chestnut came from Italy.
The Onion originated in Egypt.
The Nettle is a native of Europe.
The Citron is a native of Greece.
Oats originated in North Africa.
The Poppy originated in the East.
Rye came originally from Liberia.
Parsely was first known in Sardinia.

The Pear and Apple are from Europe.

Spinach came from Arabia.

The Sunflower was brought from Peru.

The Mulberry Tree originated in Persia.

Walnuts and Peaches are from Persia.

The Horse Chestnut is a native of Thibet.

Cucumbers came from the East Indies.

The Quince came from Crete.

The Radish is a native of China and Japan.

Pears are of Egyptian origin. Horseradish is from Southern Europe.

Cantaloupe is a native of Italy. Celery originated in Germany.

JIM MACKENZIE DIES

Jim Mackenzie, formerly of Toronto, but recently Superintendent of the Three Rivers (Que.) Grain & Elevator Co., Ltd., died very unexpectedly on Monday morning, Feb. 21st. Burial



will take place at Toronto Feb. 24th, according to a wire received just as we are going to press.

An active member of the Superintendents' S ociety without interruption for the past ten years, Jim will be sorely missed by his

many ardent friends and admirers. A past director and past vice president of the association, he took an active part in everything pertaining to the work and advancement of this technical body. The friendly, cheery sphere he invariably created will leave a big gap for years to come.

Giles Stewart to Gold Proof

My successor at the Gold Proof Elevator is Giles Stewart. He was my assistant and is very capable. He will be very good timber for SOGES membership and I have discussed the possibility with him.—M. M. Darling, Louisville.

Darling to Indianapolis

I hear that Malcolm M. Darling, formerly an active SOGES member in Louisville, is now Super for the Acme-Evans Co. here. We ought to have enough here to start monthly Chapter meetings soon.—Fred Myers, Cleveland Grain Co., Indianapolis.

Ferguson Now Super

Guy W. Ferguson is now superintendent of the Municipal Grain Elevator, Portland, Ore. Kerr-Gifford & Co. lease the plant.

Schaediger to NFPA Meet

Bill Schaediger, Corn Products Refining Co., represented the SOGES at the annual Dust Explosion Hazards Committee NFPA meeting held in New York last month. Approximately 30 delegates

attended.

Among other important business matters attended to was the inclusion in the Dust Explosion Code of there commendation that the choke originated by C. J. Alger of Corn Products



Refining Co. be universally used to prevent the propagation of starch explosions. The choke has been fully tested and was fully described on these pages before.

Victor Moves

Mail addressed to S. E. Victor, Elevator Supt., Charles H. Lilly Co., Seattle, has been returned marked "unclaimed".

Lawrence to Kaysville

W. T. Lawrence, formerly with Globe Mills at Ogden is now associated with the Deseret Mills & Elevators of Kaysville, Utah.

Cooper Succeeds Bowne

A. M. Cooper succeeds the late Garry Bowne as Manager of General Mill Electrification for Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. Well known to the industry, Mr. Bowne died suddenly at his home in the east.

No Reason for Raise

As an employer you cannot grant wage increases on the ground of "outstanding production record."

Welcome Visitors

Welcome visitors this month included Hy Arendall of Innis Speiden & Co., Omaha, and Art Osgood of The Day Co., Minneapolis.

Mrs. Christensen in Hospital

Mrs. Paul Christensen, Minneapolis, widely known as "Frankie," is in the hospital. No reports are available as we go to press.

GETS SCRAMBLED HARD

While opening a grain door on a moving freight car using a car ram, a Council Bluffs laborer suffered a broken jaw, injuries to his chest and back, and cuts and bruises when the ram broke loose from the door and recoiled.

FOR WAR INSURANCE REFUND

A move is on foot, fostered by James S. Kemper of the Lumbermen's Mutual Casualty Insurance group, to have Congress pass legislation authorizing a refund of premiums paid for War Damage Insurance in excess of losses and expenses.

ESPECIALLY ADDRESSED TO ...

NCE upon a time there was a very big padlock company.* It had 60% of all the padlock business in the country... Suddenly, along came the first World War. This company got lots of Government contracts. It even had to put up a new building.... So do you know what they did? They got so busy that they just stopped advertising. Then the war stopped. And so did the war orders.

The company got panicky and went back real seriously into the padlock business and began to advertise to beat the band. But it was too late.

Do you know why? A shrewd competitor had kept on advertising all through the war and practically S-T-O-L-E this company's market. Isn't that too bad?

Continuous advertising will keep competitors from stealing YOUR market, no matter how many Government contracts you have. "Grain" would like an opportunity to show you how.

(*This is an actual case. Similar disasters were reported again and again in most all industries—nearly all could have been avoided. If one were given to predictions it wouldn't be too hard to tell who is giving thought to serving AFTER the war).

Erection Booklet

"The Open Door to 'KNOW HOW'" is the title of an attractive brochure issued by The Industrial Erectors, Inc., of Chicago, specialists in heavy machinery installations with a great deal of experience in our field.



Snooper, The Boiler-Room Cat, says: For Safety's sake keep dangerous Points Well Guarded and Marked. . . For National Safety Buy War Bonds and Stamps.—C. Gibson Franks.

Says All Should Join

There is no reason why all should not be members of the Society of Grain Elevator Superintendents. I know that the little money that is spent will give dividends over a 100%, because I have had the pleasure of getting acquainted with the members and also attended the meetings, and reading "GRAIN."—Ray M. Seeker, Anheuser-Busch, Inc., St. Louis.

Omaha Holds Meeting

We held a meeting Feb. 15. Everybody here is so busy day and night that it is really difficult to even talk to them on the phone. However the rush should let up before too long and then we'll get back on a regular schedule again.—John T. Goetzinger, Rosenbaum Brothers, Chapter Sec'y.

Beyer in Defense Plant

I've taken a long jump from the elevator business. I find that having a nand in the building of Curtiss "Hell-Diver" bombers is very interesting, although of course my job is mostly pushing a pencil at a desk on the floor on the line of construction, surrounded by blue prints and time and cost records.

Feel younger now than I have for years. Elevators here are a headache just now, just as I suppose they are everywhere, but then the business always did age the boys in it prematurely.—M. Frank Beyer, Fort William, Ont.

Associates Getting Out Notices

Following the lead of the Minneapolis Chapter, the Chicago Chapter Associates started taking turns at the pleasant privilege of getting out meeting notices for the February 7th gathering. Parke Burrows of Seedburo Equipment Co. was the speaker of the evening, and Lou Ambler, Richardson Scale Co., issued the notices.

Grover Meyer to Minneapolis Meeting

Plans are now going forward for our next meeting on March 7th. Grover Meyer, Kansas City Power & Light Company authority, is coming up to give the exposé presented before the Duluth convention, and we know we'll have a large attendance. In addition we are making this our Managers' Night.—Bob Bredt, Fruen Mlg. Co., Chapter President.

McElroy to California

John Currie is acting as Superintendent of the C. D. Jennings Grain Co.'s elevator in Hutchinson during the leave of absence of Clarence Mc-Elroy, who has gone to California for a rest.—Lou Ambler, Richardson Scale Co., Chicago.

CHAPTER MEETINGS

All are invited to attend and participate in the various Superintendents Society's Chapter meetings usually held monthly in the following locations:

Minneapolis — 1st Tuesday of month. Bob Bredt, Fruen Mlg. Co., pres.; Jim Auld, Hales & Hunter Co., sec'y.

Chicago—2nd Monday of month. Gordon Laugen, Archer-Daniels-Midland Co., pres.; Ben Danielson, Arcady Farms Mlg. Co., sec'y.

Kansas City—2nd Tuesday of month. O. B. Duncan, Salina Terminal Elevator Co., pres.; Jim Kier, Standard Mlg. Co., sec'y.

O m a h a - Council Bluffs — 2nd Tuesday of month. Charles Walker, Archer-Daniels-Midland Co., pres.; John Goetzinger, Rosenbaum Brothers, sec'y.

Ft. William-Pt. Arthur — Quarterly on call. Percy C. Poulton, N. M. Paterson & Co. Ltd., pres.; Fred Sibbald, National Grain Co. Ltd., sec'y.

A-D-M MEN ACTIVE

Bouquets to Archer-Daniels-Midland Co. Three of their number have been particularly active in SOGES affairs and deserve a hand. Charlie Walker has headed the Omaha-Council Bluffs group since its inauguration, Gordon Laugen presides over the Chicago meetings, and Cliff MacIver is not only vice president of the Minneapolis Chapter, but a director of the parent body as well. Have any other of the bigger companies equaled that record?—Herbert C. Brand, Quaker Oats Co., Cedar Rapids, SOGES V. P.

Bob Sorenson Back

We sure got a big surprise at our last gathering when Bob Sorenson walked in. He was discharged from the armed services and is now back at his old stand with the International Mlg. Co., at New Prague, Minn.—Jim Auld, Minneapolis Chapter Sec'y.

TWIN CITY PARTY SUCCESSFUL

We did have a nice Ladies' Night party Feb. 5 with an attendance of 127. Oscar Olsen was down from Duluth and Harry Clark from Omaha. Everything went off in good order and Freddies' Cafe really put on a good dinner for us.—Bob Bredt, Fruen Mlg. Co., Chapter President.

Roy Conger to Army

Roy Conger, Mid-Continent Grain Co. Super, left for the Army on Jan. 5.—Jim Kier, Standard Milling Co., K. C. SOGES Chapter Sec'y.

Never a Dull Moment

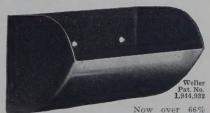
I lived on a farm all last summer and drove in and out every day. When I got there at night I surely had plenty to keep me busy until bedtime. And Sundays were always taken up with things that had to be cared for. Have not been off that plant property for months due to the acute labor shortage and an exceptionally busy year.

Our Red River valley crop was very good, but not as good as last year owing to a few hot days in July which knocked several millions of dollars of it on account of weight. Protein is running lower this year, also we had some wet weather at harvest time. . . . The car situation here is very bad and prospects for the future are not bright.

We have been exceptionally favored by not having any bugs to fight this year, but one farmer near here lost about 1,000 bu of government wheat in one of those "tin cans" from mites. It was a mess, fairly crawling away with those things.

Sure sorry that I had to miss the Duluth convention, but I could not get away. Am going to try to get to the Chicago conference in June.—Wm. J. Porter, Russell-Miller Mlg. Co., Grand Forks, N. D.

66% 50% USE CALUMET CUPS!



Now over 66%
of the large grain
elevators in Chicago — 20
cut of 30—are using Calumet Cups
to elevate their grain faster and more efficiently. Why not profit by the experience of
these large operators — install Calumets in
your elevator legs for greater capacity at
minimum costs—write for circular 35.

CALUMET B. I. WELLER CO. CUPS

JIM AULD TIES LEADER

Jim Auld, veteran Minneapolis Chapter Secretary, forged ahead from fourth place in the membership campaign to tie Lloyd Forsell, Chicago Chapter Vice President, successful



leader of late. AND just as we go to press word comes from SOGES V.P. for Membership Harold Wilber, Decatur, Ill., that Clifford MacIver, SOGES Director and Minneapolis Chapter Vice President, is just about to turn in

sixth new application—which would make it a hot and heavy three cornered contest. There are no other changes over the last report, but dame rumor has it that there will be shortly, so here's how it stands now:

- 6 Lloyd Forsell, Chicago
- 6 Jim Auld, Minneapolis 5 Cliff MacIver, Minneapolis
- 4 Jim Kier, Kansas City
- 3 Gil Lane, Chicago
- 2 Fred Myers, Indianapolis
- 2 Harold Wilber, Decatur, Ill.
- 1 Frank Jost, Chicago
- 1 Herb Brand, Cedar Rapids
- Andrew Rankine, Montreal
- 1 R. J. Lane, Jersey City
- 1 Ralph Wilson, Chicago
- 1 Emil Buelens, Chicago 1 John Long Chicago

The Enclosed "Buck" is For . .

The enclosed "buck" can be applied to my past or future subscription to "GRAIN", but in any case I must have it, if only to keep up with the best publication in the country.

Incidentally, I have just completed rereading the account of the Duluth fire in the January 1942 issue which I have filed as a piece of extra fine reporting style. Perhaps I should not find in explosions such a strong tie with the past. It is not morbidity. My wish is to have had the opportunity of tackling the monster in concert with those who have given so much time to it.

In frank admission of sentimentality, I need "GRAIN" to continue my tie with a part of my life which I enjoyed immensely, with its wealth of friendly business associations. I believe in loyalty to one's roots and abode, but if I have a chance again to adopt your part of the Nation as my home, it will be permanent.

My kindest repards to any of our friends whom you may have the time to greet for me in passing.—Rober L. Gardner, Glenside, Pa.

The lessons of the past have to be learned anew each decade.

NOT TOO BUSY, HE SAYS

"We're all busy," says Harold Wilber, SOGES V.P. for Membership, "but that only goes to make our association just that much more valuable to ourselves.

"Further evidence of this fact is reflected by the enthusiasm of those active SOGES members who go out of their way to point out the advantages of belonging to non-membersto say nothing of the astute interest evidenced in return by the new and welcome members swelling our ranks

"Welcome to one and all of you, from one and all of us," Mr. Wilber says, in reviewing those men joining SOGES since October 1st, to wit:

557 Harmon F. Norton, Apple River Mill Co., Minneapolis.

558 Laurence O. Hauskins, Cargill, Incorporated, Soybean Mill, Cedar Rapids.

559 Russell B. Millburn, Honeymead Products Co., Cedar Rapids.

560 Edward C. Howes, Dominion Gov. Dept. of Grain Inspection, Montreal.

561 Bernard J. Owens, Manager, B. & J. Milling Co., Jersey City.

562 Sidney I. Cole, Industrial Erectors, Inc., Chicago.

563 Alan B. Wilson, Charles W. Sexton Co., Minneapolis.

564 Ernest O. Ohman, Osborne-McMillan Elevator Co., Minneapolis. 565 Herbert L. Wilkins, Minneapolis Mills, A-D-M Co., Minneapolis.

566 Clare W. Cornelison, Dickinson Feed Mill, A-D-M Co., Minneapolis. 567 Al E. Lundquist, Innis Speiden & Co., Chicago.

568 Harry Hanson, The Glidden Co., Chicago.

569 Harry R. Press and

570 M. Earl Ott, Lakeside Metal

Service, Inc., Chicago. 571 John DeHerr, Ass't Supt., Colum-

bia Malting Co., Chicago. 572 Ted P. Suplee, John A. Roebling's Sons Co., Minneapolis.

Recent Reinstatements; Transfers

514 Harry S. Hansen, Innis Speiden & Co., Minneapolis.

220 Bob Sorenson, International Milling Co., New Prague, Minn.

539 Paul L. Dittemore on transfer from Robert T. Beatty, Northwestern Miller, Minneapolis.

A-D-M Speaker Feb. 28th

Mr. W. J. Hoofe, Director of Industrial and Public Relations, Archer-Daniels-Midland Co., is the principal speaker on the Feb. 28th Elevator & Mill Sectional meeting of the Minneapolis Occupational Safety Conference. Meetings of this group have been highly successful. The section is headed by Paul H. Christensen, Van Dusen-Harrington Co., and Clifford A. MacIver, A-D-M Co.

If you cannot find happiness in your work, you have the wrong job.

MINNEAPOLIS THREATENS CON-VENTION CITY-ITES

Nosing into second place in the annual membership campaign, the Minneapolis group have stepped up their pace and literally jumped from a mid-field position to one direly threatening the comfortable lead unsuspectingly enjoyed by the approaching convention city hosts. Lagging but a mere three lengths behind, Jockey Laugen is whispering in the ear of his prancing mount to leave Jockey Bredt and his dashing steed back in the dust. But Jockey Bredt will have none of it and is hugging the rail at the curve to catch Jockey Laugen at the three-quarters point. The present positions of the entrees are:

13 - Chicago

10 - Minneapolis

7 - Minneapolis

3 - Kansas City

0 - Omaha-Council Bluffs

0 - Ft. William-Pt. Arthur

SO THEY'LL CELEBRATE

The stork isn't at all choosy about the days of the year. One day is the same as the next to him (or is the stork a "her"). But to each of us there is naturally no more important day than our own birthday-and that's just the way it should be.

During the coming month some swell folks have varied ideas about which day in March is the best, but regardless, "Happy Birthday" to all of you.

March 7-Wm. J. Porter, Russell-Miller Mlg. Co., Grand Forks.

March 23-Emil Buelens, Glidden Co., Chicago.

March 27-Gordon Clark, Flanley

Grain Co., Sioux City. March 27-Charles S. Clark, Grain

& Feed Journals, Chicago.



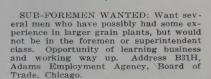
Gives counts and prices on accurate guaranteed mailing lists of all classes of business enter-prises in the U. S. Wholesaclers—Retailers— Manufacturers by classification and state. Also hundreds of selections of individuals such as professional men, auto owners, income lists, etc. Write today for your copy

Polk Bldg .- Detroit, Mich. Branches in Principal Cities World's Largest City Directory Publishers Mailing List Compilers. Business Statistics. Producers of Direct Mail Advertising.

TWO TRAFFIC MEN WANTED

Two traffic men wanted, one for Indianapolis and one for Chicago. Must capable of handling position with terminal elevator firm. Give qualifications, etc., in first letter addressed to "GRAIN," Board of Trade, Chicago 4.

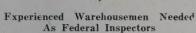




MILLWRIGHT WANTED: Man who is experienced in repairing and keeping in good condition feed milling and elevator equipment. Address B29H, Adams Employment Agency, Board of Trade, Chi-

COMPETENT GENERAL SUPT. WANTED for grain operation in mill. Must have good recommendations. Address B32H, Adams Employment Agency, Board of Trade, Chicago.

ALL AROUND, thoroughly versed, and with 20 years experience, I am looking for an opening as a general elevator superintendent, grain buyer, branch office manager, or chief inspector. Handle all manager, or chief inspector. Handle all grains, soybeans, and sorghums. Married, no children; active, good health; can go anywhere, and will travel. Sampled, weighed, inspected for Mo. State Grain Dept. 1911-1920; Federal Grain Supvsr. USDA, Ft. Worth & New Orleans 1920-23; Chief Grain Insptr & Weighmaster New Orleans 1923-31; Grain expert for Grain Stab. Corp. 1931-33; Chief Grain Insptr Mo. State Grain Dept., Kansas City 1933-43. State Grain Dept., Kansas City 1933-43. Services terminated due to political adjustment. Write Sam P. Fears, 300 West Armour, Kansas City, Mo.



An opportunity to serve in a vital wartime activity—the movement and storage of food and other agricultural products is being offered to experienced ware-housemen by the Federal Government. Men with active and responsible experience in the managing of warehouses are urged to apply to the United States Civil Service Commission for both supervisory and inspector positions. Positions as ex-aminer pay from \$2,433 to \$4,428 a year,

ammer pay from \$2,433 to \$4,428 a year, including Federal overtime pay.

Primary need is for men experienced in the operation of grain storage facilities and cotton warehouses. For grain warehouse inspection, persons should be able to grade grain in accordance with the official grain standards. Experience in large-scale operations is preferred. Since the positions involve the inspecting of large-scale operations is preferred. Since the positions involve the inspecting of warehouses, appointees are in a travel status 95% of the time. No written test will be given. Applications are not desired from persons now using their highest skills in war work. Application forms may be obtained at post offices.



ATTESTS TO THE SUPERIORITY OF

9n-7il-7ro WEATHER-PROOFING

Everyone's heard of and seen pictures of the World's largest conventional-type concrete elevator—the 10,200,000 bushel Sante Fe at Kansas City, operated by the Davis-Noland-Merrill Grain Company, members of all the larger grain exchanges.

But did you know that 10 long years ago one section of this mammoth plant was water-proofed with In-Fil-Tro? . . . And that the work was so satisfactory that a second section was similarly treated the following year? . . . And that a year later the balance of this huge structure was Weather-proofed with this same, long lasting, satisfactory material?

Need anything more be said? . . . When you're ready to take care of your plant, investigate, then call in-

B.J.MANY CO. 30 N. LA SALLE ST. CHICAGO, ILL.



A spark! A flash! And then comes the big BUST. A dust explosion E-X-P-A-N-D-S! If no "exits" are available, it proceeds to wreck the place . . . and we do mean WRECK.

Robertson Safety Ventilators mounted on elevator leg are safety "valves" that immediately release death-dealing, property-destroying pressure of a dust explosion on the loose . . . preventing s-p-r-e-a-d of destruction. Continuous gravity action vents dangerous dust from elevator leg, thereby minimizing risk of *primary* explosions. Write for descriptive literature. Be on the safe side with Robertson Safety Ventilators.

H. H. ROBERTSON CO.

Farmers Bank Building

Pittsburgh, Pa.